Supporting Parents and Strengthening Families Through Reach Out and Read

Marny Dunlap, MD

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Reach Out and Read

Reach Out and Read prepares America's youngest children to succeed in school by partnering with doctors to prescribe books and encourage families to read together.
The Foundation of a Successful Society is Built in Early Childhood

Successful Parenting of Next Generation

Strong Communities
Healthy Economy

Educational Achievement
Economic Productivity
Responsible Citizenship
Lifelong Health

HEALTHY CHILD DEVELOPMENT

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Early Brain and Child Development

Brain architecture and developing abilities are built “from the bottom up” via simple circuits and skills which provide the scaffolding for more advanced circuits and skills over time.
700 New Neural Connections per Second
Human Brain Development
Neural Connections for Different Functions Develop Sequentially

Sensory Pathways (Vision, Hearing)
Language
Higher Cognitive Function

FIRST YEAR

-8 -7 -6 -5 -4 -3 -2 -1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Birth (Months) (Years)

Foundation for Executive Function Skills is Built in Early Childhood

- Self-Control – ability to filter thoughts and impulses to resist temptations and distractions
- Working Memory – ability to hold and manipulate information in our heads over short periods of time
- Mental Flexibility – adjusting to changing demands, priorities, or perspectives
Critical Factors in Developing a Strong Foundation for Executive Function Skills

- Children’s Relationships – consistent reliable adults who support and protect them, and model and engage them in building executive function skills
- Activities - the opportunity to engage in activities that reduce stress, foster social connection, incorporate vigorous physical activity, and increase the complexity of skills at the right speed for each child
- A safe and stable environment
Serve & Return Builds Brains and Skills

- Ongoing, reliable interaction with trusted adults is essential for the development of healthy brain circuits
- Systems that support the quality of relationships in early care settings, communities, and homes help build brain architecture
Differential Brain Maturation

- **The Brake** - PFC (with some hippocampal help)

Frontal lobes:
Abstract thought, reasoning, judgment, planning, impulse and affect regulation, consequences

Temporal lobe (outside):
Processing sound and language

Limbic System (inside):
Emotions and impulsivity

+ The Gas Pedal +
Amygdala

Brain Stem & Cranial Nerves:
Vital functions
Swallowing

Parietal Lobe:
Integration of sensory data and movement

Occipital Lobe:
Visual processing

Cerebellum:
Smooth movements
Coordination
Early Childhood Stress Influences Developmental Outcomes

- **Positive Stress Response**
  - Brief increases in heart rate, mild elevations in stress hormone levels; important to development in the context of stable and supportive relationships

- **Tolerable Stress Response**
  - Serious and temporary, but impact buffered by supportive relationships and safe environments

- **Toxic Stress Response**
  - Prolonged activation of stress response systems in the absence of protective relationships; disrupts brain architecture, increases the risk of stress-related physical and mental illness
Understanding Impact of Adverse Childhood Experiences

- Early Death
- Disease & Disability
- Adoption of Health-Risk Behaviors
- Social, Emotional, and Cognitive Impairment
- Adverse Childhood Experiences

Freely reproducible slide from the Centers for Disease Control and Prevention.
Epigenetics

Interactive influences of genes and experience literally shape the architecture of the developing brain.
Learning how to cope with moderate, short-lived stress can build a healthy stress response system.

Toxic stress (when the body’s stress response system is activated excessively) can weaken brain architecture.

Without caring adults to buffer children, toxic stress can have long-term consequences for learning, behavior, and both physical and mental health.
Meaningful Differences in the Everyday Experience of Young Children

- Children in professional homes heard 382 words an hour while children raised in welfare homes heard an average of 167 words an hour. In a month, the difference in words heard was 1,100 (professional) to 500 (welfare).
Public Investment in Children by Age

- Brain's Capacity to Change
- Spending on Programs to "Change the Brain"

Age 0 3 6 12 20
Starting school without early literacy skills puts children at risk for school failure

- 35% of U.S. children enter kindergarten unprepared to learn, most lacking the language skills that are the prerequisites of literacy acquisition (National Academy of Education, 1985)
- 33% of 4th graders perform below basic reading levels on national standardized tests for reading (National Assessment of Educational Progress, 2013)
- 35% of 4th graders in Oklahoma perform below basic reading levels on national standardized tests for reading (National Assessment of Educational Progress, 2013)
- 66% of students nationally compared to 70% in Oklahoma scored at below basic or basic level.
The Reach Out and Read Program

• Advice: Encourage parents to read aloud daily and offer age-appropriate advice

• Books: From 6 months through 5 years, clinicians give children a new, developmentally appropriate book at well child visits

• Environment: The practice is made into a literacy-rich environment with posters, gently used books, library information and volunteer readers where feasible
Advice

Medical providers offer parents literacy- and language-related anticipatory guidance and encourage daily reading aloud at home.
In the Exam Room: Anticipatory Guidance

Helps parents with age-appropriate expectations:

- 6-month-old babies put books in their mouths.
- 12-month-olds can point with one finger.
- 18-month-olds can turn board book pages.
- 2-year-olds may not sit still to listen to a book.
- 3-year-olds can re-tell familiar stories.
6-month visit

Teachable moment: Talk to your baby, read to your baby!

Bright Futures Guidelines

Socio-Emotional

- Is socially interactive with parent

Communicative

- Uses a string of vowels together

Cognitive

- Continues to use visual exploration to learn about the environment but is also beginning to use oral exploration
### What We Just Saw: 6 Months

<table>
<thead>
<tr>
<th>Child</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially Larry is not focused.</td>
<td>Mom is so proud of Larry’s interest and obvious glee.</td>
</tr>
<tr>
<td>He receives the book and his joy is apparent in his entire body!</td>
<td>Mom lets him freely examine the book in part because the provider just said it was “ok.”</td>
</tr>
<tr>
<td>He calms, brings his hands to the midline, and focuses on the book.</td>
<td>Mom has questions and is obviously engaged.</td>
</tr>
<tr>
<td>He makes rudimentary attempts to turn/stroke the page.</td>
<td></td>
</tr>
</tbody>
</table>
At every health supervision visit from 6 months through 5 years, children receive a brand-new, developmentally-appropriate book to take home and keep.
Environment

Literacy-rich waiting areas include used books, posters, library information, and literacy resources. Volunteer readers sometimes read to waiting children, modeling the techniques and joys of reading aloud.
Compelling Evidence Base (15 studies) for literacy promotion in primary care

• Parental attitudes and practices change
• Home environment changes
• Children’s attitudes change
• Children’s skills change
Reach Out and Read: Leveraging the Existing System

Family and Pediatric Clinicians:

- Have **early and nearly universal access** to parents and children
- Have **repeated one-on-one contact** with families
- Provide **trusted guidance** about children’s development and well-being
- Serve as an important **source of information and support**
Why Early Literacy Matters

- Early Language and Literacy Skills
- Kindergarten readiness
- 3rd grade Reading Proficiency
- Graduation from High School
- Path to success in school and life
Books Build Better Brains

- Children’s language evolves primarily through parent/child interactions, “going back and forth” (serve & return)
- The brain’s “architecture” is shaped by early experiences. Parents talking and reading with their child builds specific skills and connections. (repetition matters)
- Differences in children’s skills are measurable as early as 9 months of age (starting early matters)
- Parents and children reading together build strong social-emotional bonds that help children learn (mediates toxic stress)
WHY Reach Out and Read?

Relational Development

Children’s language – and social/emotional development – evolve primarily through parent/child interactions.
Relational Development

• One mother’s parenting skills were not well developed, and I discussed some things that should be happening… When I discussed daily reading to her children, she said “now that is something I can do.”
  – Reach Out and Read Provider (2013 Medical Consultant Survey)

• A mother was having difficulty with sibling rivalry, and was able to improve relationships among her children by focusing on books rather than behaviors.
What We Just Saw: 18-36 months

<table>
<thead>
<tr>
<th>Child</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knows his animal sounds</td>
<td>Lets child control book</td>
</tr>
<tr>
<td>Can point to objects</td>
<td>Can re-read stories</td>
</tr>
<tr>
<td>Though quiet, Eli was totally engaged</td>
<td>Engages in verbal turn-taking</td>
</tr>
<tr>
<td>Increased attention span</td>
<td>Labels/describes</td>
</tr>
<tr>
<td>Development of left to right sequencing</td>
<td>Asks “wh” questions</td>
</tr>
</tbody>
</table>

Key aspects of responsive parenting impacting language/cognition

• Richness of verbal input – labeling objects and actions (Weizman, 2001)

• Verbal scaffolding – structuring language interaction to meet child’s needs; providing child with language that they need (Vygotsky, 1978; Snow, 1977)

• Verbal responsivity – responding to vocalizations with imitations or expansions, engaging in back-and-forth conversation and asking questions (Hart and Risley, 1994)
Developmental Assurance

Humans do not develop in isolation; there is a need for affiliation.

Development proceeds through and by secure relationships.
Reach Out and Read Oklahoma

- 49 clinical locations
- 31,397 children participate annually
- 54,116 new books distributed annually
Reach Out and Read

- School Readiness Tool
- Book
- Developmental Surveillance Tool
- Relational Surveillance Tool
- Toxic Stress Buffering
- Positive Parenting Tool
- Cognitive Intervention
WHY Reach Out and Read?

“It is easier to build strong children than to repair broken men.”

— Frederick Douglass (1817–1895)
Thank You